

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image sensor comprising:

a glass plate for passing through the light reflected from a document arranged at a predetermined distance from said ~~grass~~ glass plate;

a light source for illuminating the surface of a document to be read through said glass plate;

a lens for focusing, to a predetermined position, light emitted from said light source and reflected from the reading surface of the document;

an image reading device for converting the light reflected from the document and passing through said lens into image read-out information;

a housing accommodating and supporting said glass plate, said light source, said lens and said image reading device in a predetermined position and formed to have a length greater than a width of the document; and

a deformation preventing device formed along and attached at only one surface of the lengthwise direction of said housing and reinforcing rigidity of said housing to thereby prevent said housing from deflecting perpendicularly to the lengthwise direction, thereby keeping the interval between the surface of the document to be read and said image reading device constant at the focal length.

Claim 2 (Original): An image sensor according to claim 1, wherein said deformation preventing device, in a state where said glass plate is directed up, is provided on said housing having been bent in a lengthwise central region of said housing to be in a concave form relative to both ends thereof.

Claim 3 (Original): An image sensor according to claim 1, wherein said deformation preventing device, in a state where said glass plate is directed up, is provided on said housing having been bent in the lengthwise central region of said housing to be in a convex form relative to both ends thereof.

Claim 4 (Original): An image sensor according to claim 2, wherein said housing, in a state rested on supports provided at both lengthwise ends thereof, is bent in a concave form due to applying an external force to a lengthwise central region thereof.

Claim 5 (Original): An image sensor according to claim 3, wherein said housing, in a state rested on supports provided at a lengthwise central region thereof, is bent in a convex form due to applying an external force both lengthwise ends thereof.

Claim 6 (Currently Amended): An image input/output apparatus comprising:
a document inserting inlet for inserting a document for image reading from the outside;
a roller for transporting the document inserted from said document inserting inlet;
an image sensor having including,
a light source for illuminating the surface of the document to be read and inserted at said document inserting inlet and transported by said roller,
a lens for focusing light emitted from said light source and reflected from the surface of the document to a predetermined position,
an image reading device for converting the light reflected from the document and passing through said lens into image read-out information,

a housing accommodating and supporting said light source, said lens and said image reading device in a predetermined position and formed to have a length greater than the width of the document[[;]], and

a deformation preventing device formed along and attached at only one surface of a lengthwise direction of said housing and reinforcing rigidity of said housing, thereby keeping the interval between the surface of the document to be read and said image reading device at the focal length; and

a read-out image information output device for outputting image information read out by said image sensor to the outside.

Claim 7 (Original): An image input/output apparatus according to claim 6, wherein said image sensor, when in a state that a glass plate provided in the housing spaced at a predetermined distance from the document for image reading is directed up, has had a deformation preventing device fixed on said housing after the housing has been bent in a concave form at the lengthwise central region relative to both ends thereof, and then arranged in an input/output apparatus housing such that said glass plate is directed down.

Claim 8 (Original): An image input/output apparatus according to claim 6, wherein said image sensor, when in a state that a glass plate provided in the housing spaced by a predetermined distance from the document for image reading is directed up, has a deformation preventing device fixed in said housing after the housing has been bent in a convex form at a lengthwise central region of said housing relative to both ends thereof and then is arranged in an input/output apparatus housing such that said glass plate is directed up.

Claim 9 (New): An image sensor comprising:

a glass plate for passing through the light reflected from a document arranged at a predetermined distance from said glass plate;

a light source for illuminating the surface of a document to be read through said glass plate;

a lens for focusing, to a predetermined position, light emitted from said light source and reflected from the reading surface of the document;

an image reading device for converting the light reflected from the document and passing through said lens into image read-out information;

a housing accommodating and supporting said glass plate, said light source, said lens and said image reading device in a predetermined position and formed to have a length greater than a width of the document; and

a deformation preventing device formed along the lengthwise direction of said housing and reinforcing rigidity of said housing to thereby prevent said housing from deflecting perpendicularly to the lengthwise direction, thereby keeping the interval between the surface of the document to be read and said image reading device constant at the focal length,

wherein said deformation preventing device, in a state where said glass plate is directed up, is provided on said housing having been bent in a lengthwise central region of said housing to be in a concave form relative to both ends thereof.

Claim 10 (New): An image sensor comprising:

a glass plate for passing through the light reflected from a document arranged at a predetermined distance from said glass plate;

a light source for illuminating the surface of a document to be read through said glass plate;

a lens for focusing, to a predetermined position, light emitted from said light source and reflected from the reading surface of the document;

an image reading device for converting the light reflected from the document and passing through said lens into image read-out information;

a housing accommodating and supporting said glass plate, said light source, said lens and said image reading device in a predetermined position and formed to have a length greater than a width of the document; and

a deformation preventing device formed along the lengthwise direction of said housing and reinforcing rigidity of said housing to thereby prevent said housing from deflecting perpendicularly to the lengthwise direction, thereby keeping the interval between the surface of the document to be read and said image reading device constant at the focal length,

wherein said deformation preventing device, in a state where said glass plate is directed up, is provided on said housing having been bent in the lengthwise central region of said housing to be in a convex form relative to both ends thereof.

Claim 11 (New): An image sensor according to claim 9, wherein said housing, in a state rested on supports provided at both lengthwise ends thereof, is bent in a concave form due to applying an external force to a lengthwise central region thereof.

Claim 12 (New): An image sensor according to claim 10, wherein said housing, in a state rested on supports provided at a lengthwise central region thereof, is bent in a convex form due to applying an external force both lengthwise ends thereof.

Claim 13 (New): An image input/output apparatus comprising:

a document inserting inlet for inserting a document for image reading from the outside;

a roller for transporting the document inserted from said document inserting inlet;

an image sensor including,

 a light source for illuminating the surface of the document to be read and inserted at said document inserting inlet and transported by said roller,

 a lens for focusing light emitted from said light source and reflected from the surface of the document to a predetermined position,

 an image reading device for converting the light reflected from the document and passing through said lens into image read-out information,

 a housing accommodating and supporting said light source, said lens and said image reading device in a predetermined position and formed to have a length greater than the width of the document, and

 a deformation preventing device formed along a lengthwise direction of said housing and reinforcing rigidity of said housing, thereby keeping the interval between the surface of the document to be read and said image reading device at the focal length; and

 a read-out image information output device for outputting image information read out by said image sensor to the outside,

 wherein said image sensor, when in a state that a glass plate provided in the housing spaced at a predetermined distance from the document for image reading is directed up, has had a deformation preventing device fixed on said housing after the housing has been bent in a concave form at the lengthwise central region relative to both ends thereof, and then arranged in an input/output apparatus housing such that said glass plate is directed down.

Claim 14 (New): An image input/output apparatus comprising:

a document inserting inlet for inserting a document for image reading from the outside;

a roller for transporting the document inserted from said document inserting inlet;

an image sensor including,

 a light source for illuminating the surface of the document to be read and inserted at said document inserting inlet and transported by said roller,

 a lens for focusing light emitted from said light source and reflected from the surface of the document to a predetermined position,

 an image reading device for converting the light reflected from the document and passing through said lens into image read-out information,

 a housing accommodating and supporting said light source, said lens and said image reading device in a predetermined position and formed to have a length greater than the width of the document, and

 a deformation preventing device formed along a lengthwise direction of said housing and reinforcing rigidity of said housing, thereby keeping the interval between the surface of the document to be read and said image reading device at the focal length; and

 a read-out image information output device for outputting image information read out by said image sensor to the outside,

wherein said image sensor, when in a state that a glass plate provided in the housing spaced by a predetermined distance from the document for image reading is directed up, has a deformation preventing device fixed in said housing after the housing has been bent in a convex form at a lengthwise central region of said housing relative to both ends thereof and then is arranged in an input/output apparatus housing such that said glass plate is directed up.